

PATENT  
Reply under 37 CFR 1.116  
EXPEDITED PROCEDURE  
Group 1731

### REMARKS

This Request for Reconsideration is submitted in response to the Office Action dated January 15, 2004, which was designated as Final. Claims 1-32 are pending in the application, with claims 20-32 having been withdrawn and claims 1-19 having been considered and rejected by the Examiner. No claim amendments are submitted herewith, and claims 1-19 remain pending and under consideration. The Examiner is respectfully requested to consider the arguments and analysis herewith, and to allow claims 1-19.

Claims 1-19 have been rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious from the teaching of U.S. Patent 4,510,020 (Green et al.) with U.S. Patent 4,055,903 (Hansen et al.) or U.S. Patent 5,810,973 (Carlsmith et al.).

The Examiner states that Green et al. teaches the use of a refiner (column 4, lines 3-5) or a disintegrator (column 6, lines 33-39), and that each inherently would fluff pulp, as shown by Carlsmith et al. (column 1, lines 58-59) and Hansen et al. (column 4, lines 54-55). In the alternative, the Examiner suggests that even if the teaching of Green et al. does not inherently teach fluffing of pulp, such would be obvious from the teaching of Hansen or the teaching of Carlsmith. In commenting on Applicants' arguments submitted in the previous amendment, the Examiner states that Applicants have not shown that the intensive agitation of Green would not fluff pulp.

Green et al teaches treatment in a refiner prior to lumen loading (column 4, lines 3-5) and in a disintegrator after lumen loading (column 6, lines 33-39), and references possible extensive agitation "prior to lumen loading or during the impregnation stage" (column 6, lines 37-39).

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In contrast to the teachings of Green et al., Hansen et al or Carlsmith et al, alone or in combination, claim 1 recites in part:

**adding at least one additive to the fiber suspension, at least one said additive being  $\text{CaCO}_3$ ;**  
**treating the fiber suspension and the at least one additive together in a fluffer;** (Emphasis added.)

Applicants submit that the invention recited in claim 1 is neither taught, disclosed or suggested by Green et al., Hansen et al or Carlsmith et al. alone or in combination, and that the invention includes advantages over the prior art.

It is respectfully submitted that the Examiner's focus on whether or not a refiner or a disintegrator fluffs pulp is misplaced in that claim 1 does not simply recite fluffing the pulp, but more specifically recites treating the suspension and at least one additive together in a fluffer. Applicants respectfully submit that the prior art teachings of treating the pulp in a refiner before lumen loading involves treating the fiber suspension alone, not the suspension with the additive. Treating in a disintegrator after lumen loading clearly occurs after the fibers have been loaded with additive. Thus, the uses of a refiner and a disintegrator as taught by Green et al are at different stages than Applicants' use of a fluffer, and the process recited in claim 1 is different from that taught by Green et al. with or without the teachings of Carlsmith et al and/or Hansen et al.

Even if a refiner or a disintegrator will fluff pulp, each will also affect the pulp in other ways. Neither a refiner nor a disintegrator is a fluffer, and the impact of treating the pulp in either of the devices is different than treating the pulp in a fluffer. In refiners and disintegrators energy is put into the fiber slurry, and the mechanical properties of the fibers are changed. Thus, by

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processing the pulp in either, physical properties such as freeness of the pulp, and breaking length and porosity of products formed therefrom are changed.

In contrast, a fluffer is used in the present invention, as recited in claim 1, so that the physical properties of the fibers are not changed during the lumen loading step, even while lumen loading efficiency is increased. Fiber properties remain controlled by steps prior to or after loading, by use of devices specifically selected for the purpose and results desired. A fluffer is different from a refiner or a disintegrator, and substituting a refiner or a disintegrator for the fluffer of Applicants' process as recited in claim 1 will substantially alter the process.

The Examiner has further referred to column 6, lines 37-39 of Green et al., which suggests that "any extensive agitation should occur prior to lumen loading or during the impregnation stage" to avoid dislodging filler within the lumens. The Examiner interprets this to include the use of a refiner during impregnation. As stated above, use of a refiner or extensive agitation imparting energy into the stock sufficient to dislodge filler from the lumens would also alter physical properties of the stock, as discussed above. Agitation is mixing, and the process in a fluffer is not a mixing process. The use of agitation or extensive agitation to treat the suspension and additive together is different from the process recited in claim 1, which treats the suspension and additive in a fluffer.

None of the references alone or in combination teach the use of a fluffer as recited in claim 1. Applicants have recited a process that specifically uses a fluffer during a defined stage of the process for improved process efficiency and control of the pulp properties. Therefore, it is submitted that it is not relevant whether or not a refiner or disintegrator would fluff pulp, since the prior art teaches the use thereof before or after lumen loading. Further, even if a refiner or disintegrator were used during the equivalent step of Applicants' use of a fluffer, the use thereof

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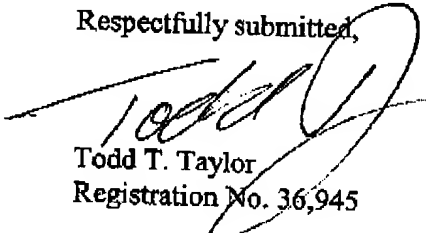
would materially alter the process. Thus, it is respectfully submitted that the references cited by the Examiner do not teach the process of the pending claims, which recite "treating the fiber suspension and the at least one additive in a fluffer".

For the foregoing reasons, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. Pending claims 1-19 are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

  
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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, on: March 15, 2004.

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Name of Registered Representative

  
Signature

March 15, 2004

Date

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